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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,321	01/31/2001	Takashi Kaku	FUJO 18.277	5536

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EXAMINER

GELIN, JEAN ALLAND

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 05/10/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,321

Applicant(s)

KAKU, TAKASHI

Examiner

Jean A Gelin

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 11-17 and 33 is/are allowed.
- 6) ☒ Claim(s) 4 and 18-32 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 18 and 24, the phrase "of which" in line 4 of claim 18 and in line 5 of claim 24 should be replaced by a precise word in order to point out what the phrase "of which" is referring to. Appropriate correction is required.

Claims 18 and 24 recite the phrases "a received signal" in line 6 of claim 18, in line 8 of claim 24 should be --said received signal--, and the phrase communication chips in line 12 of claim 24 should be --communication devices-- or communication devices in line 2 should be --communication chips--There is insufficient antecedent basis for this limitation in the claim.

Claims 19-23 and 25-32 are rejected for the same reason as set forth above because they depend on claims 18 and 24.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2681

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Lau et al. (US 6,690,657).

Regarding claim 4, Lau teaches a radio communications system (fig. 2) for establishing a high-speed radio access network, wherein a plurality of pico-nets (46, 48, 50, col. 2, lines 50-65) are provided, and wherein transmitting power of each of the pico-nets is reduced to a level where no interference occurs between the plurality of pico-nets (i.e., the use of low power in piconets decreases interference, col. 3, line 65 to col. 4, line 5, reducing transmit power reduces potential interference, col. 8, lines 56-62), and wherein communication band of each of the pico-nets is broadened (i.e., reducing transmit power allows re-use channel elsewhere in the network corresponding to broaden network, col. 8, lines 51-62).

5. Claims 18, 19, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmutz et al. (US 6,687,509).

Regarding claim 18, the functional recitation that "in order to compensate for a signal level in such a way that a receiving power of a received signal received via the receiving antenna becomes a predetermined reference value" has not been given patentable weight because it is narrative in form: In order to be given patentable weight, a functional recitation must be enpressed as a "means" for performing the specified function, as set forth in 35 USC § 112, 6th paragraph, and must be supported by

recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279.

The remaining limitation is rejected by Schmutz, wherein Schmutz teaches a communications device (fig. 4), which is provided with a receiving antenna (11B or 13) and a transmitting antenna (11A), and outputs a signal via the transmitting antenna (col. 7, lines 23-25), a phase of which being same as that of a received signal (i.e., if the transmitted power is less than what is needed, power is increased (not a change of phase) to meet the requirement, col. 10, lines 52-64, col. 11, line 60 to col. 12, line 6).

Regarding claim 19, Schmutz teaches a complete integral circuit is provided in a control loop for controlling transmitting signals (i.e., increasing or decreasing power of the transmitted signals based on comparison corresponds to control loop for controlling, col. 11, lines 9-40).

Regarding claim 21, Schmutz teaches a generator to generate power using at least one of thermal energy, vibration energy, energy of an electric field noise and energy of a magnetic field noise existing in a vicinity of this communications device (i.e., generate power level, col. 11, lines 31-40).

Regarding claim 22, Schmutz teaches wherein a radio signal transmitted via the transmitting antenna is weak (i.e., power is increased when the signal is weak, col. 11, lines 31-40).

Allowable Subject Matter

6. Claims 1-3, 11-17, and 33 allowed.

7. Claims 24-32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

8. Claims 5-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 20 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haneda (US 4,849,919) teaches when the power control is low the power transmission is stopped (col. 2, lines 11-25).

Baldwin et al. (US 5,132,687) teaches transmission of data before the power is low enough to stop transmission (col. 5, lines 20-27).

Ganz et al. (US 6,584,080) teaches packet transmission from mobile station to mobile station via a plurality of repeaters (fig. 1).

Matsuo (US 5,745,847) teaches automatic gain control circuit capable of compensating variation of reception level with wide range.

Cho (US 3,873,936) teaches reducing distortion in a repeated transmission system.

Cannon et al. (US 6,650,871) teaches cordless RF range extension for wireless piconets.

Art Unit: 2681

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGelin
April 29, 2004

JEAN GELIN
PATENT EXAMINER

Jean Allard Gelin